

Community Spotlight

North Lake Community Finds Weed Solution: Work Together!

After many years of living near a lake, seeing changes in its environment is inevitable. Most of the time, the changes seem inconsequential. But what do you do when the changes begin to cause problems or affect your way of life? Where do you even begin to try fixing the problem?

These are questions North Lake community members had – and have since answered – as they noticed aquatic weeds were becoming a major problem, particularly fragrant waterlilies and Eurasian watermilfoil, in their lake. The weeds had begun encroaching on the shoreline and docks, affecting recreational use and creating water quality issues that began impacting the health of North Lake.

Banding Together

North Lake (55 acres) straddles the line between Federal Way and King County, with the Weyerhaeuser Corporation owning the undeveloped western shoreline of the lake.

Last spring, the weed problem became extreme enough that residents began discussing the problem and what could be done about it.



Lily pads at North Lake had begun to impact lake use and water quality

Residents and members of the the North Lake Improvement Club contacted the King County Lake Stewardship Program to learn more about what they could do.

Generally, two things are needed to tackle and resolve this type of problem: an organized, dedicated group of citizens and money.

Going Door To Door

Five dedicated North Lake residents organized a steering committee and began working with King County staff to learn about methods for ridding their lake of the noxious aquatic weeds. To keep their neighbors informed, members of the steering committee went door to door and explained the problem,

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Stewardship U

Environmental stewardship means careful and responsible management of your natural surroundings. For many people that comes in the form of their daily actions and choices. But for people who live by lakes, there are even more opportunities to protect or improve your environment.

But knowing something needs to be done and knowing how to do it are two different things. Often, the lack of information or resources are the real obstacles to “getting involved” – a term we hear so often these days.

How can people get involved and be effective at protecting lakes, streams, wetlands, or wild areas in

their neighborhood? King County has launched a new initiative, *Stewardship U*, to connect people with technical and funding resources and provide networking opportunities. The events described below offer citizens, organizations and local agencies information and skills to undertake a stewardship project or improve ongoing programs. 

Saturday, November 6, 2004

Getting the Green: Writing Successful Environmental Grants
South Seattle Community College
9:30 a.m. to 12:30 p.m.

Many agencies and foundations have grant money to assist with projects such as planting trees, stream restoration and water quality education. But before the money can be awarded, a grant application has to be filed. Ideal for the novice grant writer, this free class will cover all the basics. Pre-registration required.

Saturday, November 13, 2004

Watershed Stewardship Fair:
Linking Communities and Resources
Kirkland Senior Center
10:00 a.m. to 4:00 p.m.

This free event will highlight successful projects and feature panel discussions on developing partnerships, working with the media, finding grant funding, and an “Instant Grant-ification Booth” where small grant applications can be reviewed and possibly funded that day! Pre-registration required.

Saturday, December 4, 2004

Urban Habitat Restoration:
Making It Happen
Natural Resource Stewardship Network: 10th Anniversary Forum
South Seattle Community College
9:30 a.m. to 3:30 p.m.

Learn about grant opportunities, tools and techniques for urban habitat restoration projects and how to sustain them. This free event features ask-the-expert roundtables. Topics include: making the most of media, building volunteer stewardship, and the experts confess — the mistakes that taught them the most. Pre-registration required.

**These events are free and open to the public.
Pre-registration is required. Call 206-296-8312.
dnr.metrokc.gov/grants/**

Reader Survey Survey Says...

In the last issue of *The Lake Steward*, we asked for your feedback on everything from article topics to water quality to the state of your lake. Responses came in by mail and through our online survey and we thank everyone who took time to give us this feedback. Here's what we heard...



Creating shoreline barriers, are among the landscaping changes readers have made

Better Choices, Better Stewardship

The majority of respondents said they've made better choices in the way they do things around their home and lake as a result of what they've read in *The Lake Steward*. They've also shared information with family, friends and relatives about stewardship. Readers consistently listed reducing the use of fertilizers and pesticides, using organic alternatives, or eliminating them all together as a change they've made.

People also cited making landscaping changes to discourage geese and improve lake habitat,

controlling aquatic weeds, and increasing the use of native plants in landscaping.

Fertilizer was identified by readers as the element they believe to have the highest impact on water quality. Auto fluids, pesticides, development and septic system failure – in that order – also received high ratings.

Water Quality & Monitoring

More than two-thirds of respondents indicated that they found the water quality monitoring updates “very” or “somewhat” useful. And 83 percent of respondents said they felt that monitoring lake water quality was very important in protecting the environment.

Not surprisingly, reader's answers varied when asked if their lake's water quality was improving, declining or staying the same. We encourage you to review the annual data for your lake, to compare actual data against your perception of the water quality. The annual report is due out by the end of the year and will be available online at dnr.metrokc.gov/lakes.

Future Newsletters

About two-thirds of respondents said they'd prefer receiving the newsletter by mail. However, in 2005 the Lake Stewardship Program will be cutting back publication costs (see, “Program Changes” sidebar this page). Beginning in January 2005, check our Web site for lakeside living information and articles: dnr.metrokc.gov/lakes/.



LS Program Changes in 2005

Next year, the lakes tracked by the Lake Stewardship Program will change as a result of budget reductions in the Water and Land Resources Division of the King County Dept. of Natural Resources and Parks.

Lakes in rural areas, which are not included in future city annexations, will continue to be monitored. However, lakes within city boundaries or in areas within the urban growth line will no longer be monitored unless the city is able to cover associated costs by contracting with the county for services.

Lakes eligible for continued monitoring include: Alice, Allen, Ames, Cottage, Echo-Snoqualmie, Francis, Grass, Horseshoe, Joy, Kathleen, Langlois, Marcel, Margaret, McDonald, Morton, Holm (Neilson), Paradise, Peterson Pond, Ravensdale, Retreat, Shadow, Spring, Walker, Walsh, Webster and Welcome.

Ineligible lakes include: Angle, Beaver (in Sammamish), Bitter, Boren, Burien, Clark, Desire, Dolloff, Echo-Shoreline, Fenwick, Fivemile, Hicks (Garrett), Geneva, Haller, Jones, Killarney, Leota, Lucerne, Meridian, Mirror, North, Pine, Pipe, Sawyer, Shady, Star, Steel, Trout, Twelve, Wilderness and Yellow.

Program publications, such as *The Lake Steward*, are also slated for reduction. Beginning in January 2005, check our Web site for lakeside living information and articles: dnr.metrokc.gov/lakes/.

Lake Monitors Report 2004 Monitoring Update

Volunteer monitors at 53 lakes have completed 13 of the 14 scheduled sampling trips with an outstanding completion rate of 96 percent! Given the impending changes to the Lake Stewardship Program next year (see “Program Changes,” p. 3), this could be the most complete set of King County lake data for years to come. Congratulations and thanks to our volunteers for a job well done. Following is an overview of the data collected.

Algae and Secchi

On a scale of one to three, several lakes consistently reported algae particle density at level three for each sampling event, meaning more than 100 algae particles were visible in about two liters of water. But, many lakes recorded level one, meaning fewer than ten algae particles were visible in about two liters of water. **Figure 1** shows average algae particle density. Note that spikes showing increased algae particle density among all lakes loosely match the dips in the average Secchi transparencies (**Fig. 2**). This shows — what lakeside residents know to be true — that water isn’t as clear when algae growth is dense, but regionally our lakes tend to be clear in summer.

Average Temperatures

Figure 3 shows the average, minimum and maximum temperatures from the 53 monitored lakes through the season this far, as well as the average air temperature (per *Accuweather.com*) near Boeing Field during the week prior to the sampling event.

Though most of the values are accurate, thermometers used by our volunteers are not as precise as SeaTac instruments.

Trophic State Indicators

The Trophic State Index (TSI) is a commonly used set of formulas that use Secchi transparency, total phosphorus (TP) and chlorophyll *a* values to predict the biological productivity of a lake. **Figure 4** shows the minimum, maximum and average TSI values based on 11 samples at lakes monitored from April 21 through September 26. Lakes are charted from the lowest average TSI (Langlois) to the highest (Allen). The TP chart (**Fig. 5**) arranges lakes in the same order for easy comparison.

Notice that most lakes cover a wide range of TSI values through the season. In other words, your lake is constantly changing.

When looking at the TP chart (**Fig. 5**), notice that values generally increase from left to right; the same would be true if the Secchi and chlorophyll *a* charts were shown, mainly because these are the measurements used to calculate the TSI.

However, it is interesting to note that the values don’t ascend in a straight line. Four exceptions that

highlight TSI relationship imperfections are Beaver-1, Cottage, Fivemile and Peterson.

The TP values are low compared with lakes on the right side of the chart. Each of these lakes has tea-colored water, which affects the Secchi transparencies. Given that TP values are relatively low for these lakes, as are the chlorophyll *a* values (not shown), it is very likely that the TSI calculation is biased toward the higher end of the scale.

Online Data Next Year

Reduced program funding in 2005 may result in the discontinuation of lake monitoring updates normally published in the *The Lake Steward*, look for online reports of lake monitoring data next year at dnr.metrokc.gov/lakes.



Fig. 1

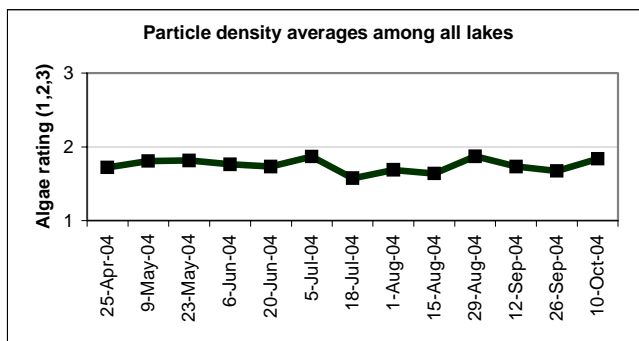


Fig. 2

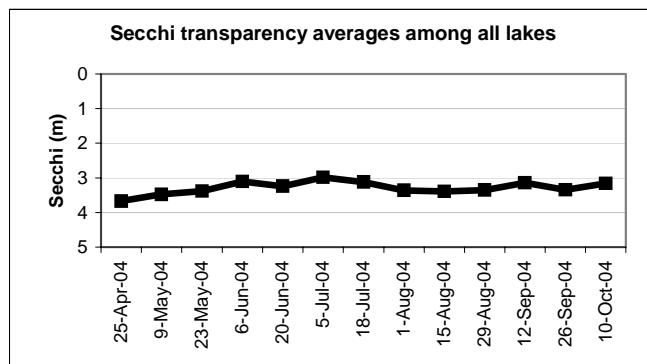


Fig. 3

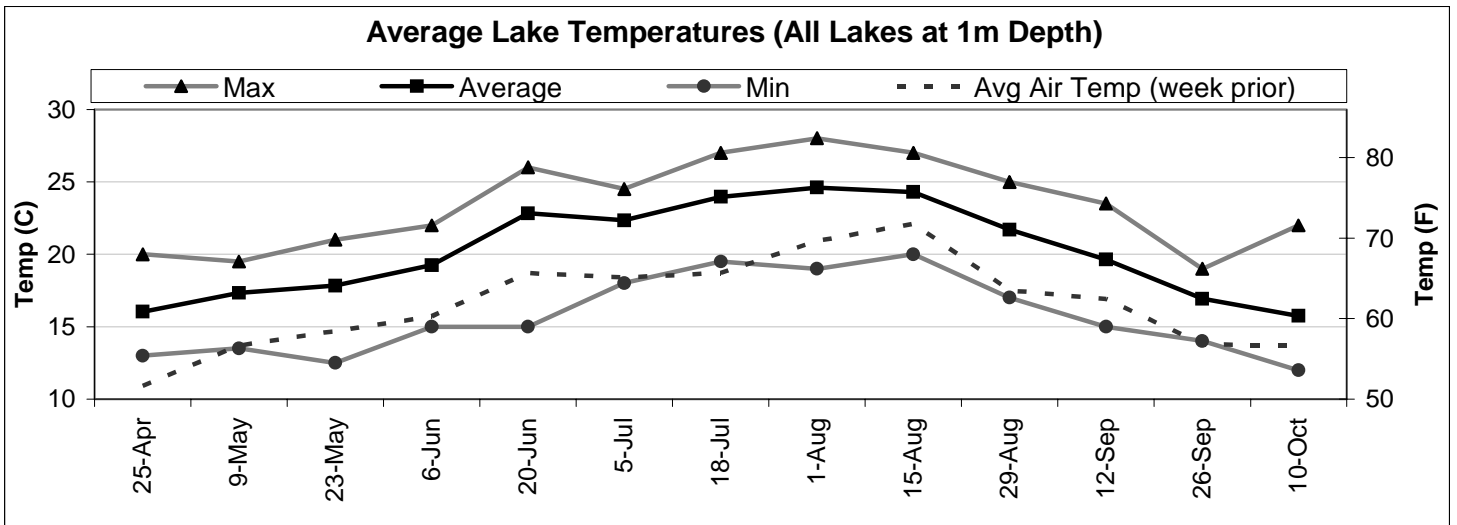


Fig. 4

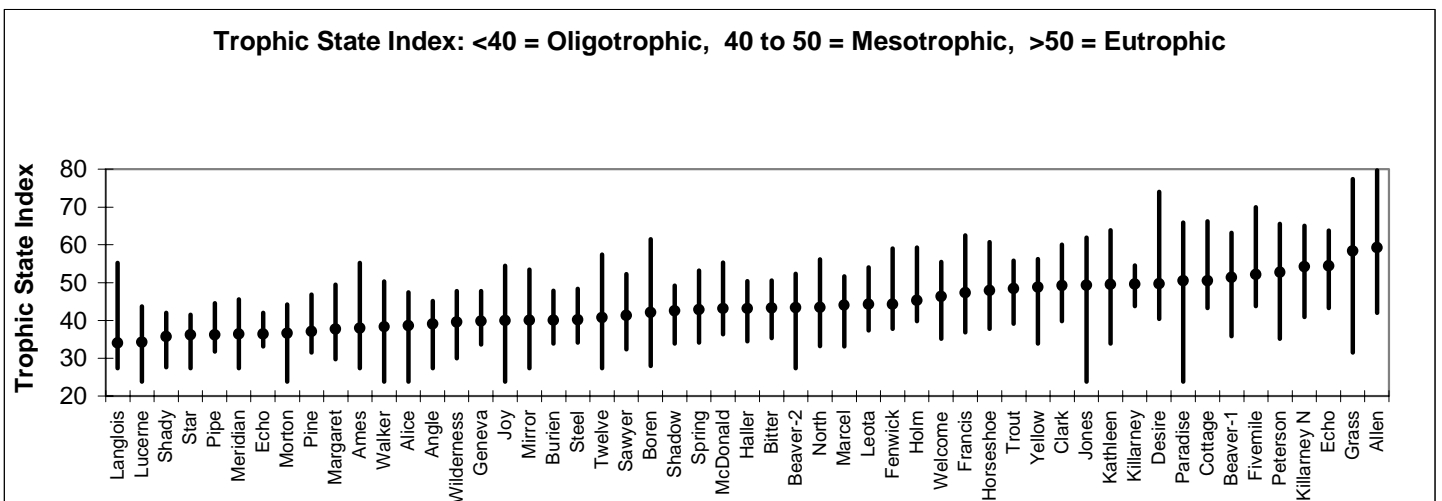
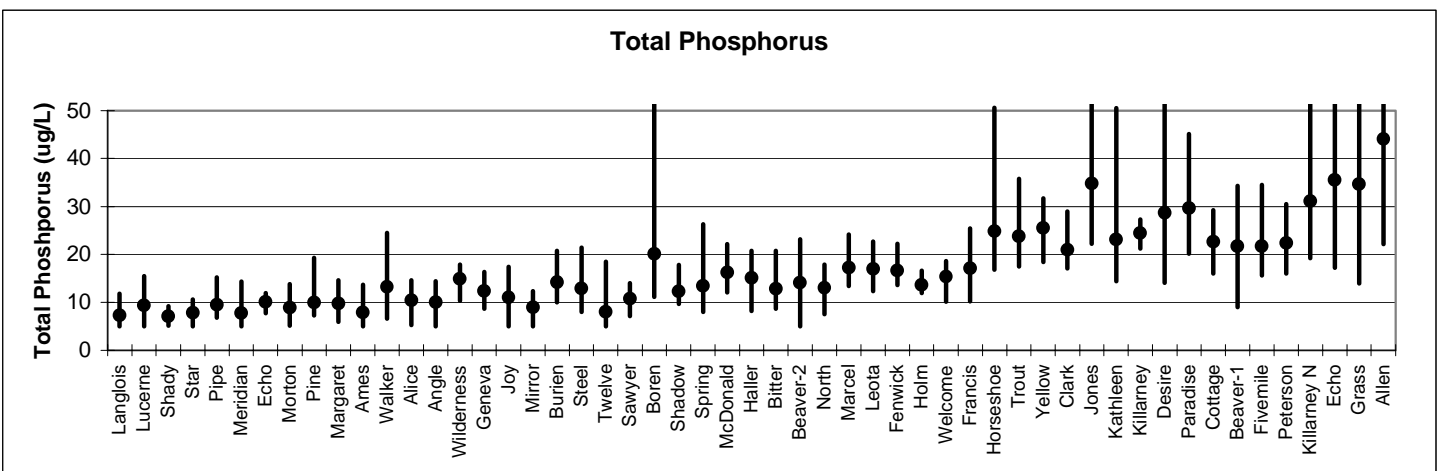


Fig. 5



News & Events

And the winner is...

The Lake Steward won first place in the 2004 Savvy Competition, sponsored by the City-County Communications Marketing Association (3CMA), in the newsletter category. With over 825 city and county members nationwide, 3CMA is a leading organization of local governments that are innovating better ways of communicating with citizens.

November 6: Volunteer Thank You Event

The annual Thank You Event for our dedicated Volunteer Lake Monitors is scheduled for Saturday, November 6, at the Cedar River Education Center in North Bend from Noon to 3:00 p.m. Invitations have been mailed. Please RSVP by November 4 to Katie Messick at 206-263-5086 or katie.messick@metrokc.gov.

December 6 Workshop

The Lake Stewardship Program's winter workshop, "Organizing Your Community To Help Your Lake," is scheduled for Monday, December 6, at the Issaquah Library from 6:30 to 8:30 p.m. This event is open to all lakeside residents. A one hour presentation will be followed by a panel discussion comprised of experts as well as experienced community members. Registration is required as space is limited. Contact Katie Messick: katie.messick@metrokc.gov or 206-263-5086.

King County at Work Small Lake Projects Get Grants

A strong community can often do more to protect the health of a lake and its watershed than any one environmental protection agency. It can identify potential lake problems and seek funding to educate their neighbors or start a stewardship project.

Following are some recent examples of small lake community projects that have received grant funding through King County's Grant Exchange program.

In 2002, the Lake Kathleen Homeowners Association was awarded \$2,000 (with \$671 in matching funds) to remove a purple loosestrife infestation at their lake.

In 2003, the Klahanie Homeowners Association was awarded \$1,600 (with \$400 in matching funds) for the Yellow Lake Enhancement Project which inventoried and removed purple loosestrife, fostered community stewardship, and raised awareness about controlling noxious weeds.

The Spring Lake community was awarded \$1,650 (with \$165 in matching funds) last year for a Water Quality Assessment. They monitored levels of the herbicide 2,4-D in coordination with King County's Aquatic Weed Control Program effort to control noxious weeds. Data was used to inform the community about noxious weeds, water quality issues and potential effects of lawn herbicides.

An award of \$24,000 (with \$18,700 in matching funds) funded the Shadow Lake Bog and Jenkins Creek Enhancement and Preservation Project which allowed for the



Community education, like this noxious weed identification poster, can be funded through grants

purchase of conservation easements on two parcels of land – critical to the protection of an additional 42 acres at the headwaters of Jenkins Creek – totaling 24 acres.

This year the North Lake Improvement Club was awarded \$2,000 (with \$5,300 in matching funds) to eradicate aquatic weed infestations (see "Community Spotlight" p. 1).

To learn more about how to apply for grants, find funding or start a community organization, check out the classes at *Stewardship U* (see "Lakeside Living," p. 2). For information about King County's Grant Exchange call 206-296-8265 or 800-325-6165 Ext. 68265. TTY: 800-833-6388. Or go to dnr.metrokc.gov/grants/.



Community Spotlight Continued . . .

inviting people to a community meeting to learn more. At the very first meeting, residents supported researching ways to combat the problem.

One option was to apply for an Aquatic Weed Management Fund from the Washington State Department of Ecology. Securing this grant would provide funds for work in 2005, but the community wanted to take action sooner to try and regain lost recreational access due to the weeds. The North Lake community group applied for a \$2,000 King County Small Change grant to begin treating the lilies immediately.



North Lake residents discuss aquatic weed removal at a community meeting

To provide the necessary grant match and ensure that all the lilies on the lake were eradicated, the steering committee knocked on every lakeside resident's door to solicit donations.

"The community support was incredible," said Wendy Honey, North Lake resident and a member of the steering committee.

"It was only [a few] dollars out

of every neighbor's pocket...so people were more than gracious in [donating] their money."

A Unique Approach To A Common Problem

They also approached the Weyerhaeuser Corporation to gain support in partnering on the project and successfully secured Weyerhaeuser's agreement to get permits for the work and match the grant amount.

North Lake was awarded the Small Change grant from King County. Combined with the matching funds from the community and Weyerhaeuser, the North Lake community was able to treat the fragrant water lilies this year for \$5,300.

"Our lake looked beautiful after we got the lily pads under control," said Ms. Honey.

For the first time in years, residents on the lake saw swimmers jumping off docks and enjoying the cool water in the summer heat.

Future Plans

The North Lake community has just begun to scratch the surface – the lake's surface, in fact – to further their plans to protect water quality. Currently, they are working



Uncontrolled Fragrant Waterlily pads can overwhelm a lake

on a grant and accompanying Integrated Aquatic Vegetation Management Plan (IAVMP) to pursue funding from the Washington State Department of Ecology for future aquatic weed work.

"The Small Change grant was just the first step in getting our feet wet for the IAVMP process," said Ms. Honey.

"It's been a huge time commitment," said Ms. Honey when asked about her experience with the project. "You really need a core of dedicated people to see it through. But once we got going, the whole process was pretty simple. People were asking what they could do to help. Neighbors from Lake Geneva even came over to see what we've done. [Doing] good can be very contagious!"



King County

Department of Natural Resources and Parks
Water and Land Resources Division

Lake Stewardship Program

206-296-6519 TTY: 711

dnr.metrokc.gov/lakes/

Saffa Bardaro, Editor



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The Lake Steward Volume 11, No. 4

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Please allow 6-8 weeks for changes.

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dnr.metrokc.gov/lakes

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Voice: 206-296-6519

or TTY Relay: 711

Winter Workshops and Events

A variety of **free** workshops, events and classes are being offered in the next two months. Pre-registration is required. See inside for details.

Saturday, November 6

Volunteer Lake Monitor

Thank You Event, Cedar River Education Center (p. 6).

Saturday, November 6

Getting the Green: Writing Successful Environmental Grants, South Seattle Community College (p. 2).

Saturday, November 13

Watershed Fair: Linking Communities and Resources, Kirkland Senior Center (p. 2).

Saturday, December 4

Urban Habitat Restoration:

Making It Happen, South Seattle Comm. College (p. 2).

Monday, December 6

Organizing Your Community To Help Your Lake, Issaquah Library (p. 6).

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